

## **Comparison of two doses of tranexamic acid on reducing of bleeding during spinal fusion surgery.**

### **Abstract**

#### **Surgery:**

One of the problems that influenced surgeon and anesthesiologist in strumental spinal fusion surgery (CD surgery) is the excessive bleeding during surgery, that is the problem for surgeon and is with the complication of blood transfusion for patients. There are multiple ways for redusing bleeding during surgery. Intravenouse administration of tranexamic acid as anti fibrinolytic drug is used for this target. In this study the effect of two doses of tranexamic acid for reducing of bleeding in spinal fusion srgery is assessed.

#### **Method and materials:**

This clinical trial was performed on 75 patients with class I and II ASA patients scheduled for strumental spinal fusion surgery under the same general anesthesia. The patients accidentally divided to 3 groups. one of the groups received single dose of tranexamic acid and another group received single dose of tranexamic acid plus maintenance dose of tranexamic acid that continued during surgery. Control group received normal saline as a placebo. amount of blood loss during surgery and until 24 hours later were documented . bleeding score and surgeon satisfaction scores were obtained in operation room and ward. taken results were statistically analysed by SPSS software , chi\_ square and Anova.

#### **Results:**

Although amount of blood loss reduced in the patients with administration of drug ( 934 cc in control group, 664cc in single dose group and 758 cc in single dose plus maintenance dose group). But was not statistically significant.(p value>0.05). the quality of surgery field, surgeon satisfaction scores and blood transfusion to patients in 3 groups was not significant.

#### **Conclusion:**

In this study the reduction of bleeding fallowing tranexamic acid administration in spinal fusion surgey although was clinically considerable but was not significant. The lack of sample's size can be one of causes. Then further same researches with more samples recommended.

**Key words:** Tranexamic acid – bleeding – spinal fusion surgery